INDEX TO VOLUME XV

Action, The, of *B. diphtheriae* and some related organisms on glucosamine..... 55
——, The, of haematoxins upon oxygenated and reduced blood cells. Abstract..... 36
Additive, The, and antagonistic effect of cations upon bacterial viability. Abstract..... 13
Aerobic bacteria, The decomposition of cellulose by..... 223
Agglutinating ability of *Salmonella pullorum*, The relation between electrical charge and the..... 105
Agglutinin production. Abstract..... 43
Albus, William R. A strain of *Clostridium welchii* causing abnormal gassy fermentations in Emmenthal or Swiss cheese..... 203
——. Some factors that may affect the plate count of milk. Abstract..... 25
Alcohol test, A modification of the, as an index of the bacterial count and keeping quality of milk..... 93
Anomalous bacterial plate counts from milk. Abstract..... 24
Archibald, R. W., Wade, E. M., and Whittaker, H. A. Chemical sterilization of milk bottles in relation to tubercle bacilli..... 189
Arnold, Lloyd. The influence of environmental changes upon gastric secretion and intestinal bactericidal function. Abstract..... 46

B. diphtheriae, The action of, and some related organisms on glucosamine. 55
B. influenzae, A note on a light-activated hemolysin produced by..... 51
(*B. pyocyaneus*), Studies in the carbohydrate metabolism of *Ps. aeruginosa*. 357
Bacilli, diphtheria, Electrophoresis of, I. Some relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli..... 367
——, ——, ——, II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
——, ——, ——, III. The development of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli..... 421
——, The relation of encapsulated bacilli found in metritis in mares to encapsulated, from human sources..... 245
Bacilli, tubercle, Chemical sterilization of milk bottles in relation to..... 189
Bact. pullorum, The fermentation of maltose by..... 235
Bacteria, aerobic, The decomposition of cellulose by..... 223
——, lactic acid, The proteolytic action of certain..... 165
——, Some conditions affecting the production of gelatinase by proteus.... 267
Bacterial count, A modification of the alcohol test as an index of the, and keeping quality of milk..... 93
—— metabolism. The influence of phosphate buffer in carbohydrate-free and in glucose-containing media..... 297

Bacterial plate count, Is the statistical method applicable to the?..... 207
—— viability, Relative importance of additive and antagonistic effects of cations upon..... 67
Bactericidal, The, action of smoke (as used in the smoke-curing of fish). Abstract..... 33
Bacteriology, The present status of systematic..... 143
Bacterium coli, The effect of hydroxyl ion concentration on the thermal death rate of..... 341
Baldwin, I. L., and Dunham, D. H. The relation between the legume root nodule bacteria and the host plant with reference to plant immunity. Abstract..... 21
——, and Fred, E. B. Suggestions concerning the nomenclature of the legume root nodule bacteria. Abstract..... 8
Barnes, LaVerne. A comparison of the effectiveness of vaccination against *Pasteurella avicida* by the oral, subcutaneous, and intravenous methods. Abstract..... 43
——. Oral, subcutaneous and intravenous vaccination with native fecal organisms. Abstract..... 43
Barnes, Mildred, and Burke, Victor. The cell wall a factor in the Gram reaction. Abstract..... 12
Batchelor, Harold W., and Curie, Irwin H. The effect of fertilizers on soybeans. Abstract..... 22
Behrens, C. A., and Keipper, C. H. Agglutinin production. Abstract..... 43
Belding, David L. Hemorrhagic septicemia of fish. Abstract..... 48
Boak, Ruth, and Carpenter, C. M. Thermal death point studies of *Brucella abortus*. Abstract..... 41
Boysen, H. H., and Rahn, Otto. Distribution, The, of bacteria in butter. Abstract..... 30
Branham, Sara E., Robey, Lucille, and Day, Lois A. Gastro-intestinal, A, poison produced by *Bacterium enteritidis* and by *Bacterium paratyphosum* B (Aertrycke type). Abstract..... 36
Breed, Alice F. The micrococci present in the normal cow's udder. Abstract..... 29
Breed, Robert S. The present status of systematic bacteriology..... 143
Breed, R. S., and Pederson, C. S. The fermentation of glucose by bacteria of the genus serratia. Abstract..... 10
Broadhurst, Jean, and Dix, Anne. Should bacterial standards for swimming pools be revised? Abstract..... 23
Buchanan, J. H., and Levine, Max. An index useful in designating the germicidal efficiency of alkaline washing compounds. Abstract..... 15
Buchanan, R. E. Physiology as a basis for the differentiation of bacterial genera. Abstract..... 7
Burke, Victor, and Barnes, Mildred. The cell wall a factor in the Gram reaction. Abstract..... 12
——, and Ulrich, Catherine. Rate of bacterial adaptation. Abstract..... 40
Burkey, L. A. Pectin fermenting bacteria. Abstract..... 33

Cameron, E. J., and Williams, C. C. The thermophilic flora of sugar in its relation to canning. Abstract..... 31

Carbohydrate-free and in glucose-containing media, The influence of phosphate buffer in. Bacterial metabolism 297
—— metabolism of *Ps. aeruginosa* (*B. pyocyaneus*), Studies in 357
Carpenter, C. M., and Boak, Ruth. Thermal death point studies of *Brucella abortus*. Abstract 41
Cations, Relative importance of additive and antagonistic effects of, upon bacterial viability 67
Cell, The, wall a factor in the Gram reaction. Abstract 12
Cellulose, The decomposition of, by aerobic bacteria 223
Chalmers, C. H. A modification of the alcohol test as an index of the bacterial count and keeping quality of milk 93
Cheese, Emmenthal or Swiss, A strain of *Clostridium welchii* causing abnormal gassy fermentations in 203
Chemical sterilization of milk bottles in relation to tubercle bacilli 189
China blue-aurin-cellulose, The, medium for physiological investigation of cellulose fermentation. Abstract 33
Clark, William Mansfield. An outline of the history of studies on anaerobiosis. Abstract 16
——, and Merrill, Alice T. Some conditions affecting the production of gelatinase by proteus bacteria 267
Clostridium welchii, A strain of, causing abnormal gassy fermentations in Emmenthal or Swiss cheese 203
Cohen, Barnett. Reduction potentials in bacterial cultures and their relation to anaerobiosis. Abstract 16
Cohen, Peter, and Kopeloff, Nicholas. Further studies on a modification of the Gram stain. Abstract 12
Coleman, Marion B., and Gilbert, Ruth. Recent cases of undulant fever in New York state. Abstract 40
Colloid chemical aspects of the Kahn reaction. Abstract 49
Comparison, A, of the effectiveness of vaccination against *Pasteurella avicida* by the oral, subcutaneous, and intravenous methods. Abstract 43
Comparative methods for the testing of various germicidal agents. Abstract 15
Culture media, The insolation of certain 195
Curie, Irvin H., and Batchelor, Harold W. The effect of fertilizers on soybeans. Abstract 22

Day, Lois A., Robey, Lucille, and Branham, Sara E. A gastro-intestinal poison produced by *Bacterium enteritidis* and by *Bacterium paratyphosum* B (Aertrycke type). Abstract 36
Decomposition, The, of cellulose by aerobic bacteria 223
Destruction of botulinum toxin by milk bacteria. Abstract 35
Development, The, of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli. Electrophoresis of diphtheria bacilli. III 421
Dewey, E. T., Green, R. G., Zieglar, N. R., Halvorson, H. O., and Green, B. B. Epidemic encephalitis in foxes. Abstract 47

Diphtheria bacilli, Electrophoresis of. I. Some relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli..... 367
—— ——, —— ——. II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
—— ——, —— ——. III. The development of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli..... 421
Distribution of thermophilic spoilage bacteria. Abstract..... 32
——, The, of bacteria in butter. Abstract..... 30
Dix, Anne, and Broadhurst, Jean. Should bacterial standards for swimming pools be revised. Abstract..... 23
Dolloff, A. F., and Winslow, C.-E. A. Relative importance of additive and antagonistic effects of cations upon bacterial viability..... 67
—— and ——. The additive and antagonistic effect of cations upon bacterial viability. Abstract..... 13
Downing, Lillian M., Sears, H. J., Ricen, Leo. The duodenal flora in achlorhydria. Abstract..... 46
Downs, C. M., Koerber, Kenneth, and Jones, H. P. A study of iso-hemolysins. Abstract..... 41
Drake, E. T., and Sturges, W. S. Motility of *C. bifermentans*. Abstract.. 20
Dubos, René J. The decomposition of cellulose by aerobic bacteria..... 223
Dunham, D. H., and Baldwin I. L. The relation between the legume root nodule bacteria and the host plant with reference to plant immunity. Abstract..... 21
Dunmire, Frances, and Sherwood, Noble P. The effects of urea on living cells. Abstract..... 42
Duodenal, The, flora in achlorhydria. Abstract..... 46
Dutton, L. O. Microbic dissociation in streptococci. Abstract..... 38

Edwards, Philip R. The fermentation of maltose by *Bact. pullorum*..... 235
——. The relation of encapsulated bacilli found in metritis in mares to encapsulated bacilli from human sources..... 245
Effect, The, of alkali solutions upon the bacteria normally found in unwashed milk bottles. Abstract..... 25
——, The, of fertilizers on soybeans. Abstract..... 22
——, The, of freezing on yeasts. Abstract..... 23
——, The, of hydroxyl ion concentration on the thermal death rate of *Bacterium coli*..... 341
——, The, of urea on living cells. Abstract..... 42
Electrical charge, The relation between, and the agglutinating ability of *Salmonella pullorum*..... 105
Electrophoresis of diphtheria bacilli. I. Some relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli..... 367
—— —— —— ——. II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
—— —— —— ——. III. The development of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli..... 421

Electrophoretic measurement of the virulence of diphtheria bacilli, The development of a simplified technique for. Electrophoresis of diphtheria bacilli, III..... 421
—— mobilities of diphtheria bacilli, Some relations between the virulence, toxigenicity and. Electrophoresis of diphtheria bacilli, I..... 367
Epidemic of encephalitis in foxes. Abstract..... 47

Falk, I. S., and Jensen, L. B. Electrophoresis of diphtheria bacilli. I. Some relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli..... 367
——, ——, and Mills, J. H. Electrophoresis of diphtheria bacilli. III. The development of a simplified technique for electrophoretic measurement, of the virulence of diphtheria bacilli..... 421
——, ——, and ——. Simplified cataphoresis methods to estimate diphtheria bacillus virulence. Abstract..... 38
——, ——, Tonney, F. O., and White, J. L. Electrophoresis of diphtheria bacilli. II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
Fatty acids as sources of energy for azotobacter. Abstract..... 21
Fermentation, The, of glucose by bacteria of the genus serratia. Abstract. 10
——, The, of maltose by *Bact. pullorum*..... 235
Field, J. T., Poe, Charles F., Tobey, Sidney, and Witt, Norman F. Study of lactose peptone bile media, with the addition of triphenylmethane dyes, for the detection of members of the colon group. I. In water analysis. Poe, Charles F., Hale, Walter H. and Poe, Frances E. II. In milk analysis. Abstract..... 9
Fixation, The, of nitrogen by *Bacterium aerogenes* and related species. Abstract..... 9
Flattened capillaries for microscopic examination of cultures. Abstract... 19
Frazier, W. C., and Rupp, Philip. Studies on the proteolytic bacteria of milk. Abstract..... 29
Fred, E. B., and Baldwin, I. L. Suggestions concerning the nomenclature of the legume root nodule bacteria. Abstract..... 8
——, Hopkins, E. W., and Peterson, W. H. Studies on the composition of the cells and gum of the root nodule bacteria. Abstract..... 22
——, Peterson, W. H., and Pruess, L. M. The proteolytic action of certain lactic acid bacteria..... 165
Further studies on a modification of the Gram stain. Abstract..... 12

Gainey, P. L. Fatty acids as sources of energy for azotobacter. Abstract... 21
Gastro-intestinal, A, poison produced by *Bacterium enteritidis* and by *Bacterium paratyphosum* B (Aertrycke type). Abstract..... 36
Gee, A. H., Speakman, H. B., and Luck, J. M. The influence of sodium chloride on the growth and metabolism of yeast..... 319
Gelatinase, Some conditions affecting the production of, by proteus bacteria.. 267
Gilbert, Ruth, and Coleman, Marion B. Recent cases of undulant fever in New York state. Abstract..... 40
Glucosamine, The action of *B. diphtheriae* and some related organisms on.. 55

Glucose-containing media. Bacterial metabolism. The influence of phosphate buffer in carbohydrate-free and in..... 297
Gourley, M. F., and Sears, H. J. Studies in the carbohydrate metabolism of *Ps. aeruginosa* (*B. pyocyaneus*)..... 357
Green, B. B., Dewey, E. T., Green, R. G., Zieglar, N. R., and Halvorson, H. O. Epidemic encephalitis in foxes. Abstract..... 47
Green, R. G. Symptoms of epidemic encephalitis of foxes. Abstract..... 48
——, Zieglar, N. R., Halvorson, H. O., Green, B. B., and Dewey, E. T. Epidemic encephalitis in foxes. Abstract..... 47

Hall, Ivan C. The principal postmortem findings in guinea pigs inoculated with pure cultures of pathogenic anaerobic bacilli. Abstract..... 17
Halvorson, H. O., Green, B. B., Dewey, E. T., Green, R. G., and Zieglar, N. R. Epidemic encephalitis in foxes. Abstract..... 47
Hammer, B. W., and Hussong, R. V. A thermophile coagulating milk under practical conditions..... 179
Harding, Harry A., and Ward, Archibald R. Anomalous bacterial plate counts from milk. Abstract..... 24
Hastings, E. G., and Thornton, H. R. Oxidation-reduction potentials in milk. Abstract..... 26
Heacock, Edna, and Leonard, George F. Comparative methods for the testing of various germicidal agents. Abstract..... 15
Heat production in moist organic materials with special reference to the part played by microörganisms. Microbial thermogenesis II..... 117
Hemolysin, A note on a light-activated, produced by *B. influenzae*..... 51
Hemorrhagic septicemia of fish. Abstract..... 48
Hendry, Jessie L., Wheeler, Mary W., and Kirkbride, Mary B. A study of the reactions between toxins and antisera produced with hemolytic streptococci. Abstract..... 36
Hess, Ernest. The bactericidal action of smoke (as used in the smoke-curing of fish). Abstract..... 33
Higby, W. M., and McCoy, Elizabeth. Nitrogen fixation by pure cultures of anaerobic butyric acid-forming bacteria. Abstract..... 8
Hopkins, E. W., Fred, E. B., and Peterson, W. H. Studies on the composition of the cells and gum of the root nodule bacteria. Abstract..... 22
Hucker, G. J. A study of the cocci resisting pasteurization temperatures. Abstract..... 28
Hussong, R. V., and Hammer, B. W. A thermophile coagulating milk under practical conditions..... 179
Hydroxyl ion concentration, The effect of, on the thermal death rate of *Bacterium coli*..... 341

Identification, The, of *B. radiobacter* and its occurrence in soil. Abstract.. 20
Index, An, useful in designating the germicidal efficiency of alkaline washing compounds. Abstract..... 15
Influence of age of culture on the heat resistance of non-spore-forming bacteria. Abstract..... 27

Influence, The, of environmental changes upon gastric secretion and intestinal bactericidal function. Abstract 46
——, The, of sodium chloride on the growth and metabolism of yeast 319
——, The, of the filtrates of *Clostridium botulinum* and *Clostridium sporogenes* upon the growth of each of these organisms. Abstract 18
Inheritance, The, of resistance to the Danysz bacillus in the rat. Abstract ... 45
Inhibiting, The, effect of *St. lactis* on *Lactobacillus bulgaricus*. Abstract ... 26
Insolation, The, of certain culture media 195
Interconvertibility, The, of R and S bacterial types of *B. paratyphosus* B by homologous immune sera. Abstract 39
Irwin, M. R. The inheritance of resistance to the Danysz bacillus in the rat. Abstract 45
Is the statistical method applicable to the bacterial plate count? Abstract ... 24
Is the statistical method applicable to the bacterial plate count? 207

Jackson, Edna G. A pleomorphic anaerobe: the etiological organism in a fatal meningitis. Abstract 48
James, L. H. Distribution of thermophilic spoilage bacteria. Abstract ... 32
James, Lawrence H., Rettger, Leo F., and Thom, Charles. Microbial thermogenesis. II. Heat production in moist organic materials with special reference to the part played by microörganisms 117
Jensen, L. B., and Falk, I. S. Electrophoresis of diphtheria bacilli. I. Some relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli 367
Jensen, L. B., Falk, I. S., and Mills, J. H. Electrophoresis of diphtheria bacilli, III. The development of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli 421
——, ——, and ——. Simplified cataphoresis methods to estimate diphtheria bacillus virulence. Abstract 38
——, ——, Tonney, F. O., and White, J. L. Electrophoresis of diphtheria bacilli. II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli 413
Jones, H. P., Downs, C. M., and Koerber, Kenneth. A study of iso-hemolysins. Abstract 41
Jones, L. R., and Rand, Frederick V. Erwin Frink Smith (1854–1927) 1

Kahn, R. L. Colloid chemical aspects of the Kahn reaction. Abstract 49
Kahn, R. L., McDermott, Elizabeth, and Lubin, Grace. Principles of antigen correction for Kahn reaction. Abstract 49
Keipper, C. H., and Behrens, C. A. Agglutinin production. Abstract 43
Kirkbride, Mary B., Wheeler, Mary W., and Hendry, Jessie L. A study of the reactions between toxins and antisera produced with hemolytic streptococci. Abstract 36
Knacke, Florence E. D., and Noble, Willis C., Jr. The action of *B. diphtheriae* and some related organisms on glucosamine 55
Koerber, Kenneth, Downs, C. M., and Jones, H. P. A study of iso-hemolysins. Abstract 41

Kopeloff, Nicholas, and Cohen, Peter. Further studies on a modification of the Gram stain. Abstract 12

Lactic acid bacteria, The proteolytic action of certain 165
Lawler, B. M., and Mudge, C. S. Is the statistical method applicable to the bacterial plate count? Abstract 24
—— and ——. Is the statistical method applicable to the bacterial plate count? 207
—— and ——. The effect of alkali solutions upon the bacteria normally found in unwashed milk bottles. Abstract 25
Leonard, George F., and Heacock, Edna. Comparative methods for the testing of various germicidal agents. Abstract 15
Leonard, Lewis T., and Marsh, Franklin W. The insolation of certain culture media 195
Levine, Max, and Buchanan, J. H. An index useful in designating the germicidal efficiency of alkaline washing compounds. Abstract 15
Lisse, Martin W., and Tittsler, Ralph P. The relation between electrical charge and the agglutinating ability of *Salmonella pullorum* 93
Locke, Arthur, and Main, E. R. The nature of diphtheria toxin. Abstract .. 35
Lubin, Grace, Kahn, R. L., and McDermott, Elizabeth. Principles of antigen correction for Kahn reaction. Abstract 49
Luck, J. M., Speakman, H. B., and Gee, A. H. The influence of sodium chloride on the growth and metabolism of yeast 319

Main, E. R., and Locke, Arthur. The nature of diphtheria toxin. Abstract.. 35
Maltose, The fermentation of, by *Bact. pullorum* 235
Mares, The relation of encapsulated bacilli found in metritis in, to encapsulated bacilli from human sources 245
Marsh, Franklin W., and Leonard, Lewis T. The insolation of certain culture media 195
McAlpine, James G., and Valley, George. The preservation of complement in various gaseous environments with special reference to carbon dioxide. Abstract 44
McCoy, Elizabeth, and Higby, W. M. Nitrogen fixation by pure cultures of anaerobic butyric acid-forming bacteria. Abstract 8
McDermott, Elizabeth, Kahn, R. L., and Lubin, Grace. Principles of antigen correction for Kahn reaction. Abstract 49
Mellon, Ralph R. Phase reversal within the aqueous-lipoidal system of the bacterial cell-wall and its relation to spontaneous agglutinability. Abstract 13
Merrill, Alice T., and Clark, W. Mansfield. Some conditions affecting the production of gelatinase by proteus bacteria 267
Metritis, The relation of encapsulated bacilli found in, in mares to encapsulated bacilli from human sources 245
Microbial thermogenesis. II. Heat production in moist organic materials with special reference to the part played by microörganisms 117
Microbic dissociation in streptococci. Abstract 38
—— —— of the tubercle bacillus. Abstract 40

Micrococci, The, present in the normal cow's udder. Abstract..... 29
Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli. Electrophoresis of diphtheria bacilli. II..... 413
Microörganisms, Heat production in moist organic materials with special reference to the part played by. Microbial thermogenesis. II..... 117
Milk, A modification of the alcohol test as an index of the bacterial count and keeping quality of..... 93
——, A thermophile coagulating, under practical conditions..... 179
—— bottles, chemical sterilization of, in relation to tubercle bacilli..... 189
Mills, J. H., Falk, I. S., and Jensen, L. B. Electrophoresis of diphtheria bacilli. III. The development of a simplified technique for electrophoretic measurement of the virulence of diphtheria bacilli..... 421
——, ——, and ——. Simplified cataphoresis methods to estimate diphtheria bacillus virulence. Abstract..... 38
Modification, A, of the alcohol test as an index of the bacterial count and keeping quality of milk..... 93
Motility of *C. bifermentans*. Abstract..... 20
Mudge, C. S., and Lawler, B. M. Is the statistical method applicable to the bacterial plate count? Abstract..... 24
—— and ——. Is the statistical method applicable to the bacterial plate count?..... 207
—— and ——. The effect of alkali solutions upon the bacteria normally found in unwashed milk bottles. Abstract..... 25
Myers, R. P. The effect of hydroxyl ion concentration on the thermal death rate of *Bacterium coli*..... 341

Nature, The, of diphtheria toxin. Abstract..... 35
Nigg, Clara. A study of the blood groups among Polynesians. Abstract.. 42
Nitrogen fixation by pure cultures of anaerobic butyric acid-forming bacteria. Abstract..... 8
Noble, Willis C., Jr., and Knacke, Florence E. D. The action of *B. diphtheriae* and some related organisms on glucosamine..... 55
Note, A, on a light-activated hemolysin produced by *B. influenzae*..... 51

Oral, subcutaneous, and intravenous vaccination with native fecal organisms. Abstract..... 43
Orr, J. H., and Reed, Guilford B. The action of haematoxins upon oxygenated and reduced blood cells. Abstract..... 36
Outline, An, of the history of studies of anaerobiosis. Abstract..... 16
Oxidation-reduction potentials in milk. Abstract..... 26

Pectin fermenting bacteria. Abstract..... 33
Pederson, C. S., and Breed, R. S. The fermentation of glucose by bacteria of the genus serratia. Abstract..... 10
Peterson, W. H., Hopkins, E. W., and Fred, E. B. Studies on the composition of the cells and gum of the root nodule bacteria. Abstract..... 22
——, Pruess, L. M., and Fred, E. B. The proteolytic action of certain lactic acid bacteria..... 165

Petroff, S. A. Microbic dissociation of the tubercle bacillus. Abstract.... 40
Phase reversal within the aqueous-lipoidal system of the bacterial cell-wall and its relation to spontaneous agglutinability. Abstract..... 13
Phosphate buffer, The influence of, in carbohydrate-free and in glucose-containing media..... 297
Physiology as a basis for the differentiation of bacterial genera. Abstract. 7
Pleomorphic, A, anaerobe: the etiological organism in a fatal meningitis. Abstract..... 48
Poe, Charles F., Field, J. T., Tobey, Sidney, and Witt, Norman F. Study of lactose peptone bile media, with the addition of various triphenylmethane dyes, for the detection of members of the colon group. I. In water analysis. Poe, Charles F., Hale, Walter H. and Poe, Frances E. II. In milk analysis. Abstract..... 9
Present, The, status of systematic bacteriology..... 143
Preservation, The, of complement in various gaseous environments with special reference to carbon dioxide. Abstract..... 44
Prickett, P. S. Thermophilic organisms in milk. Abstract..... 28
Principal, The, postmortem findings in guinea pigs inoculated with pure cultures of pathogenic anaerobic bacilli. Abstract..... 17
Principles of antigen correction for Kahn reaction. Abstract..... 49
Properties of a toxin produced by an organism isolated in periodic ophthalmia in the horse. Abstract..... 38
Proteolytic, The, action of certain lactic acid bacteria..... 165
Proteus bacteria, Some conditions affecting the production of gelatinase by. 267
Pruess, L. M., Peterson, W. H., and Fred, E. B. The proteolytic action of certain lactic acid bacteria..... 165
Ps. aeruginosa (*B. pyocyaneus*), Studies in the carbohydrate metabolism of. 357

Rahn, Otto, and Boysen, H. H. The distribution of bacteria in butter. Abstract..... 30
Rand, Frederick V., and Jones, L. R. Erwin Frink Smith (1854–1927)..... 1
Rate of bacterial adaptation. Abstract..... 40
Recent cases of undulant fever in New York state. Abstract..... 40
Reddish, George F. Method of testing antiseptics. Abstract..... 14
Reduction potentials in bacterial cultures and their relation to anaerobiosis. Abstract..... 16
Reed, Guilford B., and Orr, J. H. The action of haematoxins upon oxygenated and reduced blood cells. Abstract..... 36
Relation, The, between electrical charge and the agglutinating ability of *Salmonella pullorum*..... 105
——, The, between the legume root nodule bacteria and the host plant with reference to plant immunity. Abstract..... 21
——, The, of encapsulated bacilli found in metritis in mares to encapsulated bacilli from human sources..... 245
Relative importance of additive and antagonistic effects of cations upon bacterial viability..... 67
Rettger, Leo F., James, Lawrence H., and Thom, Charles. Microbial thermogenesis. II. Heat production in moist organic materials with special reference to the part played by microörganisms..... 117

Rettger, Leo F., and Slanetz, Charles A. Bacterial metabolism. The influence of phosphate buffer in carbohydrate-free and in glucose-containing media..... 297
Ricen, Leo, Sears, H. J., and Downing, Lillian M. The duodenal flora in achlorhydria. Abstract..... 46
Robertson, A. H. Influence of age of culture on the heat resistance of non-spore-forming bacteria. Abstract..... 27
——. Some non-spore-forming thermoduric bacteria from pasteurized milk. Abstract..... 26
Robey, Lucille, Branham, Sara E., and Day, Lois A. A gastro-intestinal poison produced by *Bacterium enteritidis* and by *Bacterium paratyphosum* B (Aertrycke type). Abstract..... 36
Rogers, L. A. The inhibiting effect of *St. lactis* on *Lactobacillus bulgaricus*. Abstract..... 26
Rosenow, Edward C. Properties of a toxin produced by an organism isolated in periodic ophthalmia in the horse. Abstract..... 38
——. Studies on immunologic specificity of streptococci isolated from various diseases of man. Abstract..... 38
Rupp, Philip, and Frazier, W. C. Studies on the proteolytic bacteria of milk. Abstract..... 29

Salmonella pullorum, The relation between electrical charge and the agglutinating ability of..... 105
Sanborn, J. R. The China blue-aurin-cellulose medium for the physiological investigation of cellulose fermentation. Abstract..... 33
Sears, H. J. Studies in the carbohydrate metabolism of *Ps. aeruginosa* (*B. pyocyaneus*). Abstract..... 11
——, and Gourley, M. F. Studies in the carbohydrate metabolism of *Ps. aeruginosa* (*B. pyocyaneus*)..... 357
——, Ricen, Leo, and Downing, Lillian M. The duodenal flora in achlorhydria. Abstract..... 46
Sherman, J. M., Stark, C. N., and Stark, Pauline W. Destruction of botulinum toxin by milk bacteria. Abstract..... 35
Sherman, J. M., Stark, C. N., and Stark, Pauline W. The influence of the filtrates of *Clostridium botulinum* and *Clostridium sporogenes* upon the growth of each of these organisms. Abstract..... 18
Sherwood, Noble P., and Dunmire, Frances. The effect of urea on living cells. Abstract..... 42
Should bacterial standards for swimming pools be revised? Abstract..... 23
Skinner, Charles E. The fixation of nitrogen by *Bacterium aerogenes* and related species. Abstract..... 9
Smith, Nathan R. The identification of *B. radiobacter* and its occurrence in soil. Abstract..... 20
Slanetz, Charles A., and Rettger, Leo F. Bacterial metabolism. The influence of phosphate buffer in carbohydrate-free and in glucose-containing media..... 297
Smith, Erwin Frink (1854–1927)..... 1
Society of American Bacteriologists, Twenty-ninth Annual Meeting..... 7

Sodium chloride, The influence of, on the growth and metabolism of yeast. 319
Some conditions affecting the production of gelatinase by proteus bacteria. 267
—— factors that may affect the plate count of milk. Abstract..... 25
—— non-spore-forming thermoduric bacteria from pasteurized milk. Abstract..... 26
—— relations between the virulence, toxigenicity and electrophoretic mobilities of diphtheria bacilli. Electrophoresis of diphtheria bacilli, I.., 367
Soule, M. H. The interconvertibility of R and S bacterial types of *B. paratyphosus* B by homologous immune sera. Abstract..... 39
Speakman, H. B., Gee, A. H., and Luck, J. M. The influence of sodium chloride on the growth and metabolism of yeast..... 319
Stark, C. N., Sherman, J. M., and Stark, Pauline W. Destruction of botulinum toxin by milk bacteria. Abstract..... 35
——, —— and ——. The influence of the filtrates of *Clostridium botulinum* and *Clostridium sporogenes* upon the growth of each of these organisms. Abstract..... 18
Stark, Pauline W., Stark, C. N., and Sherman, J. M. The influence of the filtrates of *Clostridium botulinum* and *Clostridium sporogenes* upon the growth of each of these organisms. Abstract..... 18
——, Sherman, J. M., and Stark, C. N. Destruction of botulinum toxin by milk bacteria. Abstract..... 35
Statistical method, Is, applicable to the bacterial plate count?..... 207
Strain, A, of *Clostridium welchii* causing abnormal gassy fermentations in Emmenthal or Swiss cheese..... 203
Studies in the carbohydrate metabolism of *Ps. aeruginosa* (*B. pyocyaneus*). Abstract..... 11
—— in the carbohydrate metabolism of *Ps. aeruginosa* (*B. pyocyaneus*)..... 357
—— on the composition of the cells and gum of the root nodule bacteria. Abstract..... 22
—— on immunologic specificity of streptococci isolated from various diseases of man. Abstract..... 38
—— on the proteolytic bacteria of milk. Abstract..... 29
Study of lactose peptone bile media, with the addition of various triphenylmethane dyes, for the detection of members of the colon group. I. In water analysis. II. In milk analysis. Abstract..... 9
Study, A, of the cocci resisting pasteurization temperatures. Abstract.... 28
——, A, of iso-hemolysins. Abstract..... 41
——, A, of the blood groups among Polynesians. Abstract..... 42
——, A, of the reactions between toxins and antisera produced with hemolytic streptococci. Abstract..... 36
Sturges, W. S. Flattened capillaries for microscopic examination of cultures. Abstract..... 19
—— and Drake, E. T. Motility of *C. bifermentans*. Abstract..... 20
Suggestions concerning the nomenclature of the legume root nodule bacteria.. 8
Symptoms of epidemic encephalitis of foxes. Abstract..... 48

Tanner, F. W., and Williamson, Beatrice. The effect of freezing on yeasts. Abstract..... 23

Thermal death point studies of *Brucella abortus*. Abstract..... 41
Thermogenesis, Microbial. II. Heat production in moist organic materials with special reference to the part played by microörganisms..... 117
Thermophile, A, coagulating milk under practical conditions..... 179
Thermophilic organisms in milk. Abstract..... 28
——, The, flora of sugar in its relation to canning. Abstract..... 31
Thom, Charles, James, Lawrence H., and Rettger, Leo F. Microbial thermogenesis. II. Heat production in moist organic materials with special reference to the part played by microörganisms..... 117
Thornton, H. R., and Hastings, E. G. Oxidation-reduction potentials in milk. Abstract..... 26
Tittsler, Ralph P., and Lisse, Martin W. The relation between electrical charge and the agglutinating ability of *Salmonella pullorum*..... 105
Tobey, Sidney, Poe, Charles F., Field, J. T., and Witt, Norman F. Study of lactose peptone bile media, with the addition of various triphenylmethane dyes, for the detection of members of the colon group. I. In water analysis. Poe, Charles F., Hale, Walter H., and Poe, Frances E. II. In milk analysis. Abstract..... 9
Tonney, F. O., Jensen, L. B., Falk, I. S., and White, J. L. Electrophoresis of diphtheria bacilli, II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
Tubercle bacilli, Chemical sterilization of milk bottles in relation to..... 189
Twenty-ninth Annual Meeting of the Society of American Bacteriologists.. 7

Ulrich, Catherine, and Burke, Victor. Rate of bacterial adaptation. Abstract..... 40

Valley, George, and McAlpine, James G. The preservation of complement in various gaseous environments with special reference to carbon dioxide. Abstract..... 44

Wade, E. M., Archibald, R. W., and Whittaker, H. A. Chemical sterilization of milk bottles in relation to tubercle bacilli..... 189
Ward, Archibald R., and Harding, Harry A. Anomalous bacterial plate counts from milk. Abstract..... 24
Ward, Hugh K. A note on a light-activated hemolysin produced by *B. influenzae*..... 51
Wheeler, Mary W., Kirkbride, Mary B., and Hendry, Jessie L. A study of reactions between toxins and antisera produced with hemolytic streptococci. Abstract..... 36
White, J. L., Jensen, L. B., Falk, I. S., and Tonney, F. O. Electrophoresis of diphtheria bacilli. II. Micro-electrophoresis and the differentiation of virulent and non-virulent diphtheria bacilli..... 413
Whittaker, H. A., Wade, E. M., and Archibald, R. W. Chemical sterilization of milk bottles in relation to tubercle bacilli..... 189
Williamson, Beatrice, and Tanner, F. W. The effect of freezing on yeasts. Abstract..... 23

Williams, C. C., and Cameron, E. J. The thermophilic flora of sugar in its relation to canning. Abstract..... 31
Winslow, C.-E. A., and Dolloff, A. F. Relative importance of additive and antagonistic effects of cations upon bacterial viability..... 67
—— and ——. The additive and antagonistic effect of cations upon bacterial viability. Abstract..... 13
Witt, Norman F., Poe, Charles F., Field, J. T., and Tobey, Sidney. Study of lactose peptone bile media, with the addition of various triphenylmethane dyes, for the detection of members of the colon group. I. In water analysis. Poe, Charles F., Hale, Walter H., and Poe, Frances E. II. In milk analysis. Abstract..... 9

Yeast, The influence of sodium chloride on the growth and metabolism of.. 319

Zieglar, N. R., Green, R. G., Halvorson, H. O., Green, B. B., and Dewey, E. T. Epidemic encephalitis in foxes. Abstract..... 47